Letter to Editor

Laparoscopic Resection of Cesarean Scar Pregnancy with Bilateral Uterine Artery Ligation

To the Editor,

Here, we present a case of cesarean scar ectopic pregnancy (CSP) treated laparoscopically.

When an embryo implants at the site of a previous cesarean section (CS) defect, it is called cesarean scar pregnancy (CSP). The rate of CS ectopic pregnancy has increased with the rate of CS,[1] which may lead to massive vaginal bleeding, abnormal placentation, and uterine rupture.[2] Two types of CSP have been described; type I (endogenic type) expands through to the uterine cavity and type 2 (exogenic type) shows a progression toward the bladder and abdominal cavity.[3] CSP is a rare type of ectopic pregnancy, and the most effective treatment option still remains unclear.[4]

A 32-year-old, gravidity 5, parity 3, curettage one, pregnant patient was referred to our emergency clinic with bleeding. Based on her history, she had three previous CSs, the last of which was 5 years ago. On vaginal examination, bleeding was observed at the cervix. On transvaginal ultrasonography, an 8-week fetus with no fetal cardiac activity (missed abortion) was identified on the CS defect (type II). Beta-human chorionic gonadotropin (bHCG) was 42,654 mIU/ml. Detailed information and treatment options were discussed with the patient, and laparoscopy was agreed upon. The local ethics committee approved the study, and informed consent was obtained from the patient.

With the patient in the dorsolithotomy position, a 10-mm trocar was placed using the Hasson technique, after which insufflation was initiated. Two 5-mm trocars were placed on the left side and one 5-mm trocar on the right inguinal side. During exploration, a dense adhesion was observed between the cesarean scar and the left lateral abdominal wall. The adhesion was dissected and the left ureter was identified. The pubocervical fascia was then cut using monopolar scissors, and the bladder flap was set aside. A 5 cm × 5 cm bloated gestational mass was seen at CS. Bilateral uterine arteries were ligated to minimize blood loss. After the lower cervical flap was identified, the CSP was removed using monopolar energy. Wound lips were expanded using scissors without any energy modalities. The defect was closed using continuous double-layered sutures. The operation was terminated after achieving bleeding and ureter control (video). The patient was discharged on the postoperative day 1 uneventfully; bHCG was 16,542 mIU/ml. On the postoperative 14th day, bHCG level was 3.4 mIU/ml. After 1 month postoperatively, her examination appeared normal. Her menstrual cycles were regular at postoperative 6 months.

Treatment modalities of CSP include expectant management, uterine artery embolization, dilatation and curettage, local or systemic methotrexate, hysteroscopy, and laparoscopy. Despite this alternative method, an algorithm does not exist for the management of CSP yet. In this case report, we presented a minimally invasive surgical approach for CSP at an advanced gestational age. Uterine artery ligation was performed to facilitate hemostasis. Vasopressin may also be used for this purpose; however, unfortunately, it does not exist in our country. Recently, three systematic reviews of CSP treatment options were published and two of them favor interventional strategy[5,6] while the other one argued an individualized treatment strategy based upon factors such as clinical presentation, bHCG levels, imaging features, and the surgeon's skill.[3]

In conclusion, laparoscopic resection should be considered as a complete solution, especially in CSP cases of advanced gestational age.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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